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ABSTRACT

Instruction technology should be utilized in the creation of innovative teaching methods. The learner's needs must be reconsidered with emphasis placed on the development of inquisitive, creative, critical, and self-directed thinking. (NR)

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THE REVOLUTION IN TEACHING AND TECHNOLOGY

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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NAVA Educational Forum
New Orleans, 1-12-76
Dr. R. F. Jarecke

How unfortunate you are to live here! Living here, you don't experience the tremendous buildup of excitement that goes with a trip to New Orleans. The anticipation of the best sea food in the world; the home of Dixieland Jazz and the hospitality and friendship of the people here.

That leads to say thank you to NAVA for making this possible for me, and to Charlie Roberts and his committee - thank you - very much. Until last spring I hadn't been here in 30 years, during my Navy days in 1944, and now I've been back twice in a year. It is always an exciting experience, a fun experience, and one which wreaks havoc with a diet. That's why we outsiders are so lucky - to get a treat like this occasionally.

Today, I'm to talk about the Revolution in Teaching and Technology. Let me start with a quotation from Dante, which says: "The hottest place in hell is reserved for those who stand in a neutral corner." I've decided to get out of a neutral corner.

I'm getting to the age when REVOLUTION bothers me. The thoughts of a revolution bother me... even the WORD bothers me. The title of this presentation bothers me. I suppose it's because I'm American, and over 50, and because I've been a teacher all of my adult life.

Does "revolution" bother you? Why do we worry a great deal about revolutions in South America, or Cuba, or Angola, or Latin America, and adopt various postures of distaste, while here we are, safe in America... Safe in New Orleans, and proudly helping to celebrate a Bicentennial which our forefathers started with a revolution. Isn't that curious? It is to me.

I'm not sure what you inferred from that title, and therefore, except to hear. In fact, I'M not sure what is implied MYSELF. I'm sure there's a general inference on everyone's part that "...Technology has revolutionized teaching..." ...Or that it will... or that it might... or that it could.

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WHAT DO YOU THINK? Let me ask you - point blank - Has technology revolutionized Your teaching?

Perhaps before we go farther with these questions, we ought to decide on, or define, what we are talking about. What is revolution?

Mr. Webster says that it is:

1. The time taken for a body to go around an orbit and return to its original position. (One might say that some educational ideas are, in themselves, a revolution. More of that later), or

2. A complete or radical change of any kind. or

3. The overthrow of a government or social system by those governed, and usually by forceful means, with another government or system taking its place

Now, in the context of those definitions, let me ask again - Has technology revolutionized teaching? Your teaching? Or what about "LEARNING". Shouldn't we, as teachers, really be concerned with Learning? Is it any better today, or, worse? The whole business of education, made up of people, and the teaching - learning process, is indeed a great concern today ...just as, it seems to me, it always has been ever since I've been in it - and that's more than 45 years as student and teacher. One is reminded of Eugene Howard's statement: "Improving education in America has been likened to moving a graveyard. A graveyard, once moved to a new setting, is still a graveyard. The corpses themselves are not changed -- only their location."

I found perhaps the best treatment of this topic in one of my favorite books: It's called "Extending Education Through Technology". Its contents are the selected writings of Jim Finn, on Instructional Technology. One of the articles, written in 1964, mind you, is called "A Revolutionary Season."

Finn began his article with the famous quote from Ecclesiastes: "To every thing there is a season, and a time to every purpose under the heaven: ...a time to keep and a time to cast away... a time to keep silence, and a time to speak..."

He then refers to what Raymond Williams has called the Long Revolution (and that doesn't mean Huey Long, please). It seems to me, he said, that we are living through a long revolution, ...a genuine revolution, transforming men and institutions ...It has 3 parts: the democratic revolution, the industrial-scientific revolution, and the cultural revolution.

Now - I shan't belabor these - we are celebrating our democratic revolution, and you and I have learned, and taught, all about America's Industrial Revolution - (Some of us learned about McCormicks Reaper, and Eli Whitney's Cotton Gin - and others came face to face with Sputnik and everything that spawned in America) ...But, right now, the cultural revolution is upon us and those of us who are grandparents, (and old parents) - as well as teachers, are living through and experiencing extremely difficult times.

Have you noticed, my friends, that:

1. It is very difficult to be a parent of teen-age children these days?

2. That it is very difficult to teach children these days?

3. That children seem to have a totally different set of mores and values?

4. That indeed, grown-ups and teachers - have a different set of mores and values?

Have you noticed other things happening as a result of our cultural revolution? Have you noticed a Catholic in the White House, and divorced men in the White House - and blacks and whites talking together and eating together and living together? And a whole new connotation of the work "Gay" - different from Gay Nineties. (I wonder if our era will be the Gay 70's) And women being really equal, for heavens sake!?

Have you noticed other things, professionally, as a teacher? The NEA is now a union, total and complete in competition with AFT, UPC, et al - a concept which was considered absolutely unprofessional when I became a teacher in 1947. And the NEA now excludes me from membership because I am not a teacher.

To highlight this point, let me remind you of the recent action in Pittsburgh, where a judge has fined the Teachers' Union $25,000 for contempt of orders. More significant, perhaps, is an editorial in the Sacramento Bee, January 9, 1976, entitled "Teachers Union Risks Prestige". The editorial expresses the growing disenchantment on the part of the public.

> "One of the most potent lobbies in the country is the education lobby. For years education Lobbyists have trooped the legislative halls, asking and getting vast sums of money for education.
>
> A recent federal report shows that more than $39.5 billion was spent on higher education in the 1974-75 academic year and taxpayers gave $18.7 billion of it.
>
> Now, at a time of declining enrollment and unemployed teachers, the National Education Association is planning to press the bookends tighter on the Capitol domes.
>
> John Ryor, president of the NEA, says the 1.7 million member teachers' group may for the first time endorse a presidential candidate. Mr. Ryor points out correctly that with 1.7 million members and with $3 million to spend on political action and education in 1976, the NEA will be a formidable force, a powerful new factor in U.S. politics.
>
> Formidable and powerful yes, new no. The education lobby has been around for a long time, pushing for free college education and other taxpayer subsidies that would mean more jobs for teachers and more power for the education establishment.
>
> Mr. Ryor says it isn't definite that the NEA will endorse a presidential candidate - a vote is scheduled this summer at the NEA's convention - but he doesn't hesitate in citing the main goal: Tripling of the $7 billion now spent federally on education.
>
> If the NEA does endorse a candidate this year, it will not be President Ford, whose record on education Mr. Ryor calls 'abominable.' It certainly would not be Ronald Reagan, who as govenor of California pushed through tuition increases. That leaves the bidding to the Democrats. Mr. Ryor should be able to find a suitable candidate among those with the spend and elect philosophy.

It is just possible that the support of the education lobby with its money and troops would not be without liabilities. With teachers' strikes spreading and more threatened, with militant trade union rhetoric becoming commonplace, the teachers are losing the sheen of sainthood and the respect of pupils and parents. The lamp of learning illuminates picket signs about as often as blackboards in some urban areas.

The respect that educators and their organizations earned by professionalism and dedication to quality education is being seriously eroded in the public mind. Their money will be welcome to a candidate, of course, but their prestige may not be worth much.

Endorsement of a partisan candidate in a national election could well be the final blow to that prestige."

The Union Movement certainly isn't new - only to teachers and education. But it is certainly a rather radical change, at least to me, So perhaps there is some revolution related to teaching somewhere. We've lived, recently, with population and knowledge explosions that are incredible. What have we done with it, or about? How well have we done?

Evidently, not very well. In spite of the many "advances" in education and technology, our report card looks rather grim:

There are now 3/4 of a million high school students in private schools in the South alone.

In California, Reading Level Achievement is declining rather than improving: Increasing billions are spent on remedial programs. In New York City, for example, CUNY now requires an 8th grade reading and math level for entrance to that university, which disqualifies some 10,000 high school graduates from that city. They hired nearly 13,000 teachers to operate remedial programs alone at a cost of <u>an extra $30 million bucks</u>.

And across the Nation, drop-outs are increasing, as is juvenile delinquency and there's a correlation.

Do you know, my friends, that four years in College costs less than 4 years in prison? One out of 3 high school students doesn't graduate. And statistics tell us that drop-outs are 10 times as likely to become juvenile delinquents, and a juvenile delinquent is a thousand times more likely to become a criminal!!

Why aren't we keeping students in school? Most of the drop-outs say "It's a bore". Does it have to be that way? Someone said that "The trouble with a cheap education is that we never stop paying for it." It is now estimated that nearly 50% of the children in primary grades won't finish high school!! So they will earn less, or end up in jail or on welfare, and you and I will pay for it that way.

The fact is, we need good schools and good teachers who can teach and hold children's interest, and we won't get that for peanuts. We'd better do domething about this soon. I agree with Finn when he said"...Unless educators, as individuals and within their organizations, begin to sense the pattern of the revolutionary developments, and devise ways of living with it, they will go the way of the dancing master, or, - become second level technicians in an enterprise operated by other elements of our society."

Well, this gets me back, I guess, by way of a rather dismal route, to revolution and teaching and technology. Ten years ago, Finn was predicting what would happen unless we really got into Instructional technology. And sadly, it's happening. In California, e.g., 5 years ago we drafted a master plan for Instructional Technology at the S.D.E. level. Not only was the report ignored, but the BAVI was abolished!

I have to observe that I see no real revolution in Teaching and Technology. I've seen lots of changes, but not all of them good, either for education, for students, for teaching, or for learning. And yet, we have, and <u>have had</u>, the technology to help us achieve. What's happened?

For one thing, those of us who call ourselves Instructional Technologists haven't done a good job of explaining what it is, why it is or how it works, and we haven't taken the fear and mystery out of it for you - the teacher. Neither have our schools of Education done this. I'm still trying to teach faculty members that a 50 minute lecture on a color TV screen is not innovative, and that instead of boring 30 students, it will now bore 3,000! Until teachers learn how to TEACH with Media and Technology, we won't make progress. Until someone teaches teachers how to use - rather than mis-use technology, we won't make progress.

The technology for instruction is here. The equipment is here, the tools are available and the talent is available. But we must be doing something wrong, - right?

Would you say, for example, that the Sesame Street program is successful? Why is it successful? I'll give you some answers:

1. It is directed at a grade level by people who have researched the interest level and time of the viewer.

2. It is promoted, advertised, if you will.

3. It speaks TO children, not down at them. It doesn't pontificate.

4. I don't know - but I suspect that the course of study was not decided by a Curriculum Committee, a School Board, or a State Dept. of Education.

5. Finally, it costs about $70,000 per one hour program.

I think you can hear some of the points I'm suggesting. I also suggested that we are mis-using technology, and equipment too. I do believe that one of the major causes in turning kids off is the way information is presented. That has something to do with mis-use of equipment and materials. We have known about Dales' Cone of Experience, e.g., for 30 years, but we still are ignoring what it says pretty much.

Another problem, in my opinion, is that we put too much emphasis on the teacher, and not enough on the learner. We are still "beaurocracy oriented" and in Finn's words, "...the American teacher works in - and is part of - a beaurocracy. The teacher is a functionary and, as such, becomes a replaceable unit in an organized system, where most of the significant aspects of work are already determined. ...And, since beaurocracy is notoriously resistant to change, innovation is not easy to accomplish."

"...Graveyard moving is an activity with which we educators have a great deal of sympathy; for in our own way we've been doing this kind of thing for generations. Providing new settings for dead ideas has always been a favorite part of the educator's job. Many a 1910 curriculum is now being taught in a 1970 building. Many schools, organized on a pattern conceived 50-100 years ago function in new, modern buildings with all the conveniences of the 20th Century.

Our schools today are being threatened by creeping educational obsolescence, while the times are calling out for a new kind of

school -- a school where the 3 R's of restraint, rote, and regurgitation are replaced by emphasis on inquiry, creative and critical thinking, and self-directiveness."

Meanwhile, the LEARNER. What do we know about today's student, at any level. What do we do about learning disabilities. Perhaps we need to know what the major learning Disability is today. I leave you to guess.

But, as you look about you this week, and see all of the Technology, try to keep in mind that the proper question is not "How do I thread it, or how do I run it?" but, "How will it help my students to learn better? What software (of what quality and relevance) is available?

And so "...for everything there is a season - a time to keep silent and a time to speak."

It is time to speak out; to take the opportunity presented by the long revolution. Technology - and Instructional Technology - can make us more than dispensers and purveyors of information, and I suggest that is what we must become ---more than dispensers of information.

We must really learn how to use Instructional Technology to help us to do a better job with the learner.

Until we get to the Learner, there is not going to be any Revolution in Teaching and Technology.